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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,483

01/30/2006

Takao Saito

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10/14/2008

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EXAMINER

REDDY, KARUNA P

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

10/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,483	Applicant(s) SAITO ET AL.	
	Examiner KARUNA P. REDDY	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2008 and 26 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 7/28/2008 and 8/26/2008 has been entered.

Claims 1, 3, 16, 27 and 38 are amended; and claims 16-50 are added.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Takai et al (US 6, 284, 362).

Takai et al disclose water absorbent composition (abstract) in a particle form (column 4, line 8) and has an diffusion absorption speed of 25 to 65 ml/g (column 17, lines 22-24) i.e. diffusion absorption amount of 25 to 65 ml.

Therefore, Takai et al anticipate the present claim.

4. Claims 1-3, 5-6, 11-12, 15-16, 18-19, 24-25, 38-39, 41-42, 47-48 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated Jonas et al (US 6, 395, 830 B1).

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Jonas et al disclose a hydrophilic, highly swellable polymer coated with reactive water-insoluble film-forming hydrophobic polymers (reads on hydrophobic substance in the form of film i.e. coated) and an additional reactive constituent which can react with carboxyl groups of carboxylate anions and form additional crosslinks on the particle surface and the use of the polymer particle in hygiene articles (abstract). It is noted that hygiene articles comprise fibrous material. The highly swellable polymers (read on the crosslinked polymer and hydrophilic material D of present claims) are constituted of monoethylenically unsaturated monomers and polyunsaturated monomers acting as crosslinkers (column 5, lines 4-10).

The reactive component capable of reacting with carboxyl group or carboxylate groups include polyhydric alcohol such as glycerol (column 5, lines 20-25) and read on the diffusing-penetrating agent of present claims. Suitable hydrophobic polymers are homo- and copolymers of polysiloxanes (read on the hydrophobic substance of present claims) having randomly distributed units including functional amino groups which interact with acid groups and the interaction may be a chemical bond or an electrostatic interaction and reads on the connection RC of present claims (column 6, lines 26-32). The hydrophobic polymers have a viscosity between 350 and 10,000 mPa.s (column 7, lines 7-10) and are used in amounts of from 0.005 wt% to 2 wt% (column 7, lines 32-36).

Coating of the highly swellable polymer using a multifunctional reactive compound resulting in an increase of the crosslink density at the surface may be effected subsequent to applying hydrophobizing agent onto the highly swellable polymer and postcuring results in fixation of the hydrophobic polymer (column 8, lines 42-55) i.e. hydrophobic substance is contained in the inside of water absorbent particle produced

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because of crosslinking after coating the hydrophilic polymeric particle with hydrophobic substance.

Therefore, Jonas et al anticipate the present claims.

Claim Rejections - 35 USC § 103

5. Claims 4, 7-10, 14, 17, 20-23, 26-37, 40, 43-46 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonas et al (US 6, 395, 830 B1).

The discussion with respect to Jonas et al in paragraph 4 above is incorporated here by reference. Furthermore, the swelling rate is dependent on the percentage of hydrophobic polymer and the absorption rate can thus be controlled directly through the amount of hydrophobic polymer (column 16, lines 54-58). The gel like polymer is milled and screened for the grain fraction of 150 to 850 microns (column 13, lines 20-23).

Jonas et al is silent with respect to diffusion absorption amount and absorption time (Z); properties of the absorbent resin particles and hydrophobic substance; weight average particle size of water-absorbent resin and volume average particle size of hydrophilic material.

However, given that absorption rate is dependent on the amount of hydrophobic polymer, it is a matter of routine experimentation to get the desired absorption amount at a specified absorption rate by varying the amount of hydrophobic polymer i.e. hydrophobic substance used and would have been well within the skill level of, and thus obvious to, one of ordinary skill in the art.

With respect to properties of absorbent resin particles and hydrophobic substance, given that prior art teaches / discloses essentially the same composition as

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that of the claimed, one of ordinary skill in the art would have a reasonable basis to believe that the absorbent resin composition of prior art exhibits essentially the same property(ies). Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

With respect to weight/volume average particle size, given that particle size of hydrophilic polymer overlaps with the particle size of present claims and water absorbent particle is principally made of the hydrophilic polymer, one of ordinary skill in the art would have a reasonable basis to believe that the weight average and volume average particle diameter of present claims would be possessed by the composition of Jonas et al. Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

Response to Arguments

6. Applicant's arguments with respect to prior art rejections in paragraphs 3-8 of office action mailed 3/28/2008 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARUNA P. REDDY whose telephone number is (571)272-6566. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. P. R./
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796